

HOUSE BILL REPORT

E2SHB 2809

As Passed House:
February 19, 2008

Title: An act relating to mathematics and science teachers.

Brief Description: Regarding mathematics and science teachers.

Sponsors: By House Committee on App Subcom Ed (originally sponsored by Representatives Sullivan, Haler, Kelley and Ormsby).

Brief History:

Committee Activity:

Education: 1/22/08, 1/29/08 [DPS];

Appropriations Subcommittee on Education: 2/5/08, 2/7/08 [DP2S(w/o sub ED)].

Floor Activity:

Passed House: 2/19/08, 95-0.

Brief Summary of Engrossed Second Substitute Bill

- Requires the Professional Educator Standards Board (PESB) to report data and recommendations for strengthening the corps of K-12 mathematics and science teachers, including a survey of math and science teachers to identify barriers to teaching.
- Requires the PESB to examine and report upon other states' differential pay programs for teachers in high-demand subject areas such as mathematics and science.
- Directs the PESB to work with other organizations and stakeholders to develop a statewide plan for educator recruitment.

HOUSE COMMITTEE ON EDUCATION

Majority Report: The substitute bill be substituted therefor and the substitute bill do pass.
Signed by 9 members: Representatives Quall, Chair; Barlow, Vice Chair; Priest, Ranking

This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not a part of the legislation nor does it constitute a statement of legislative intent.

Minority Member; Anderson, Assistant Ranking Minority Member; Haigh, Liias, Roach, Santos and Sullivan.

Staff: Cece Clynch (786-7195).

HOUSE COMMITTEE ON APPROPRIATIONS SUBCOMMITTEE ON EDUCATION

Majority Report: The second substitute bill be substituted therefor and the second substitute bill do pass and do not pass the substitute bill by Committee on Education. Signed by 17 members: Representatives Haigh, Chair; Sullivan, Vice Chair; Priest, Ranking Minority Member; Anderson, Assistant Ranking Minority Member; Barlow, Crouse, Fromhold, Haler, Herrera, Jarrett, Kagi, Kenney, Ormsby, Quall, Seaquist, Springer and Wallace.

Staff: Ben Rarick (786-7349).

Background:

Professional Educator Standards Board.

Created in 2000, the Professional Educator Standards Board (PESB) was initially created as an advisory board to the Governor, Legislature, the State Board of Education (SBE) and the Office of the Superintendent of Public Instruction (OSPI) on policy issues related to certified education professionals, including teachers, principals, superintendents and educational staff associates. The PESB was also directed to create alternative routes to teacher certification and administer new basic skills and subject knowledge assessments for teacher certification. Subsequently, the PESB was given responsibility and authority for policy and oversight of Washington's system of educator preparation, certification, continuing education, and assignment.

Math and Science Requirements.

In 2006 the Legislature directed the Washington State Institute for Public Policy (WSIPP) to conduct a review and statistical analysis of the Washington Assessment of Student Learning (WASL) data. The WSIPP's final report, issued in December of 2007, notes that as of spring 2007, only 56.6 percent of all students in the class of 2009 who had completed the WASL had met standard on the math WASL.

Pursuant to 2007 legislation, adjustments were made to high school assessment provisions related to state high school graduation requirements, including specific changes related to mathematics and science, as well as the addition of several alternative assessments and modification of two other alternative assessments. In order to graduate, students in the class of 2008 must: meet standard on the reading and writing portions of the WASL (or approved alternative assessments); complete a high school and beyond plan; complete a culminating project; and, for students who did not pass the math WASL or approved alternative, earn an additional math credit. Students in the 2009 through 2012 classes who do not pass the math WASL must earn two additional math credits and retake the math WASL annually. Beginning

in 2013, students will be required to meet standard on the math WASL. The science WASL will also become a graduation requirement in 2013.

Also in 2007, the Legislature passed a requirement that high school graduates take and pass three credits of math rather than the current two credits. A credit typically takes one academic year to complete. Washington is one of only a few states that requires less than three years of high school math to graduate. Washington's public four-year institutions of higher education, meanwhile, require that students have completed three math credits in high school.

The Charles A. Dana Center for Mathematics and Science Education at The University of Texas at Austin is currently assisting the OSPI with respect to the legislatively mandated mathematics standards revision process. The result will be a set of state mathematics standards defined by revised Essential Academic Learning Requirements (EALRs) and accompanying Grade-Level Expectations (GLEs) that embody the mathematics required for success in the 21st century economy.

Teacher Shortage in Math and Science.

Both mathematics and science are on the PESB's list of state-identified teaching shortage areas. Washington has various programs to recruit teachers:

- The Future Teachers Conditional Scholarship and Loan Repayment Program is designed to encourage outstanding students and paraprofessionals to become teachers. Priority is given to individuals seeking certification or an additional endorsement in math, science, technology, or special education. Selected participants benefit from a conditional scholarship or through repayments against student loans. Upon completion of their educational program, these participants are obligated to teach for a specific length of time in a Washington public K-12 school in exchange for the benefit.
- The Alternative Routes to Teacher Certification Program prepares non-teaching professionals such as engineers or computer scientists for classroom teaching. School districts, or districts in cooperation with Educational Service Districts, operate partnerships with higher education teacher preparation programs to provide this alternative recruitment route.
- The Pipeline for Paraeducators program is for individuals with at least three years of classroom experience but without a college degree. A conditional scholarship is provided for candidates to enroll in a community or technical college. Upon completion of a two-year degree, the candidate is eligible to enroll in a Route One alternative route program to obtain a mathematics, special education, or English as a Second Language (ESL) certificate.
- Retooling to Teach Mathematics and Science program is for current teachers and individuals who are not employed as teachers but who have an elementary teaching certificate. A conditional scholarship is awarded to these individuals to pursue middle level or secondary mathematics or science endorsement through one of the PESB's pathways to endorsement.

Summary of Engrossed Second Substitute Bill:

PESB Report: Strengthening the Corps of K-12 Mathematics and Science Teachers.

By September 15, 2008 the PESB is to report to the Governor, the OSPI, and the education committees of the Legislature regarding recommendations for strengthening the corps of K-12 mathematics and science teachers. The report is to include the following:

- an analysis of demand, including the number of teachers, by district, assigned to teach mathematics and science (both with and without appropriate certifications in those subjects) and the number of vacancies, as reported by the districts to the PESB;
- specifics with respect to how demand will be met by the 2010-11 school year, including the impact of the various Washington programs for teacher recruitment and an analysis of best practices in other states with respect to alternative route recruitment, financial incentives, and certification programs; and
- specific strategies for improving retention of mathematics and science teachers, increasing their effectiveness, and improving the rigor and productivity of mathematics and science teacher preparation programs.

In preparation of the report, the PESB is to take into account the recently increased graduation requirements as well as the opportunities provided by the revised mathematics and science standards and recommended curricula. The PESB is directed to seek assistance with the report and recommendations from the Center for Strengthening the Teaching Profession (CSTP), as well as other groups, and to consider the possible role of a public-private partnership in helping to meet demand and improving quality of instruction in the areas of mathematics and science.

PESB Report: Differential Pay Programs.

The PESB is also to examine and report upon other states' differential pay programs for teachers in high-demand subject areas such as mathematics and science. In conducting this study, the PESB may collaborate with the WSIPP or may contract with a third party to conduct the study. The due date for this second study is September 1, 2008, by which time the PESB is to report its findings and recommendations to the Governor, the OSPI, the education committees of the Legislature, and the Basic Education Finance Task Force.

PESB: Educator Recruitment Plan.

The PESB is charged with taking the lead and developing a collaborative statewide plan for educator recruitment by September 15, 2008.

Appropriation: None.

Fiscal Note: Available.

Effective Date: The bill takes effect 90 days after adjournment of session in which bill is passed. However, the bill is null and void unless funded in the budget.

Staff Summary of Public Testimony: (Education)

(In Support) There is a need to attract new math and science teachers. There is also a need to quantify that need. The alternative routes should be streamlined and a plan developed for recruitment of new math and science teachers. A recent informal survey by the PESB found that the need for new math teachers, which will result just from the additional math credit requirement, ranges from 430 to 450. The teacher preparation programs at institutions of higher education have many more slots available than are currently filled by students pursuing the goal of being a math teacher. A provision requiring a cohesive and collaborative recruitment plan, with the PESB taking the lead, would be a welcome addition. The business community wants to take the opportunity to help accelerate the process for attracting more math and science teachers. If the September 15, 2008 deadline for the report were pushed back by one or two months, two years of data could be captured rather than just one year. Mentoring programs are important for all teachers, not just math and science teachers. Marketing is key to attracting more math and science teachers.

(Opposed) None.

Staff Summary of Public Testimony: (Appropriations Subcommittee on Education)

(In support) The Washington Roundtable supports this bill. Our economy is globally driven and requires strong math and science skills. The key to getting quality teachers is having a strategic plan. California has gone through a similar process and determined that they need 33,000 new math and science teachers. Ohio has also undergone a similar process, and as a result proposed financial incentives for teachers in high demand areas. New York is also going through a strategic plan process. We have opportunities to realize some economies of scale since a lot of districts are already going through this process locally. Western Washington University (Western) supports a systematic study of the supply and quality of math and science teachers. Western has developed a Teach Washington proposal that addresses many of these issues, particularly differential pay for teachers in high demand areas. This proposal is currently before the Legislature as a funding request. The strategies have had excellent results when tried. The dean of Western's school of education is on the board of the Professional Educator Standards Board (PESB) and is collaborating with them on our Teach Washington proposal. Last session, the Legislature passed legislation to strengthen requirements for math teachers. Algebra II and calculus are now requirements for elementary and secondary math teachers. Last year, the Legislature funded alternative routes to certification programs to strengthen shortage areas. Additional funding went to create the pipeline for para-educator programs. The third credit requirement will increase the need for additional math teachers by about 450 teachers. The PESB is a lean staff, with about two and a half policy staff. Contractual costs will be seen in the fiscal note.

(Concerns) The Washington Education Association (WEA) has some concerns about this legislation. The WEA supports section one of the bill because we need more data about teachers. The PESB has done good work in that area, however, teachers think about respect. Do they have the support necessary to become better teachers? Is there adequate planning time in the school day? Are there updated textbooks? Differential pay could demean some teachers. Also, it is not clear what differential pay would actually cost the state. Washington is the lowest of the west coast states in teacher salaries and would have to increase the base

salary by over \$2,000 to get to the average. All subjects, whether they be art, social studies, or music, are deemed important. But when others are paid more what happens to collegiality? It brings emotions out for the teachers.

(Opposed) None.

Persons Testifying: (Education) Representative Sullivan, prime sponsor; Marc Frazer, Washington Roundtable; Jerry Bender, Association of Washington School Principals; Terese Emry, Center for Strengthening the Teaching Profession; Nasue Nishida, Professional Educator Standards Board; Bob Cooper, Washington Association for Colleges of Teacher Education; and Lucinda Young, Washington Education Association.

Persons Testifying: (Appropriations Subcommittee on Education) (In support) Nasue Nishida, Professional Education Standards Board; Sherry Burkey, Western Washington University; David Fisher, Washington Roundtable; and Kim Howard, Washington State Parent Teacher Association.

(Concerns) Lucinda Young, Washington Education Association.

Persons Signed In To Testify But Not Testifying: (Education) None.

Persons Signed In To Testify But Not Testifying: (Appropriations Subcommittee on Education) None.